Iowa Department of Natural Resources
Environmental Protection Commission

ITEM **9** **DECISION**

TOPIC **Contract – Iowa State University – Nonwadeable Stream Assessment**

The Department requests Commission approval of a contract in the amount of $52,936.00 with the University of Iowa Hygienic Laboratory for development of a nonwadeable stream assessment program.

The purpose of this contract is to develop monitoring and assessment procedures for nonwadeable streams in Iowa. The Clean Water Act requires comprehensive monitoring and assessment of all waters of the state. However, the state lacks monitoring and assessment methodologies on some water body types, such as nonwadeable streams, which prevents meeting this Clean Water Act goal. The purpose of this contract is to begin a multi-year collaborative project with ISU, DNR, and the University of Iowa Hygienic Laboratory to develop monitoring and assessment methods designed for and calibrated to nonwadeable streams.

The contract period is from August 12, 2008 – October 1, 2009.

Specifically for this contract, ISU will:

5.1 Characterize nonwadeable streams using a variety of GIS techniques.
5.2 Identify candidate least- and highly-disturbed reference sites
5.3 Evaluate sampling designs and protocols
5.4 Identify assessment sampling sites
  (a) Probabilistic sites
  (b) Targeted sites (i.e., least- and highly-disturbed references sites)
5.5 Execute the sampling design
5.6 Assemble and calibrate biological condition metrics and develop indices
5.7 Implement assessment and monitoring program
5.8 Prepare a Quality Assurance Program Plan in conjunction with DNR staff.

Funding for this contract comes from the Environment First Infrastructure Funds – Water Quality Monitoring Funds.

Mary Skopec
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Iowa Geological and Water Survey Bureau
Environmental Services Division

July 21, 2008

Proposed Budget: **Category/ Description**	**FY09**
Salaries/Hourly Personnel (3% ann incr)	
Graduate Student	21,024
Field Techs	11,920
Payroll Benefits	
Graduate Student (11.5%)	2,418
Field Techs (12%)	1,430
Equipment (>$2000)	0
Travel - Domestic	11,604
Travel - Foreign	0
Student Tuition	2,140
Supplies/Materials	1,000
Subcontracts	0
Telecommunication Charges	0
Computer Usage	500
Printing/Copying	400
Honoraria/Services	0
Postage	0
Other Direct Costs	500
Total Direct Costs	**52,936**
ISU Indirect Cost *	0
Total ISU Costs	52,936
Contributed Indirect Cost**	23,874
Total All Costs	76,810

*Indirect costs are contributed by Iowa State University, per Cooperative Agreement 1434-HQ-97-RU-01560.
**The University's full provisional rate is 47% of total direct costs less equipment and tuition.

ARTICLE IV. STATEMENT OF PURPOSE

Developing bioassessment tools is a critical element for evaluating the status of Iowa's water resources. Although assessment tools have been developed for wadeable streams, understanding the structure, function, and status of non-wadeable systems has not yet been attempted. This collaborative project will provide the foundation for developing assessment tools in non-wadeable rivers and streams. In particular, identification of appropriate sampling methods will ensure that later steps in the process are conducted in a rapid and efficient manner. Because a large amount of information will be collected during this study, important insight will be gained on the relationships between fish, invertebrates, habitat conditions, and water quality. Such insight will undoubtedly help guide further development of bioassessment techniques. In addition, this project will provide guidance on techniques for sampling species of conservation concern, an important consideration given our lack of knowledge on native fishes in large rivers and interest by the IDNR to begin survey and monitoring programs of sensitive fish species.

ARTICLE V. SCOPE OF WORK

5.1 The contractor will conduct the work to characterize nonwadeable streams as described in the attached Workplan. The Workplan is incorporated as a part of this Contract. *Proposed framework for development of bioassessment techniques:*

5.2 Identify candidate least- and highly-disturbed reference sites

5.3 Evaluate sampling designs and protocols

5.4 Identify assessment sampling sites

(a) Probabilistic sites

(b) Targeted sites (i.e., least- and highly-disturbed references sites)

5.5 Execute the sampling design

5.6 Assemble and calibrate biological condition metrics and develop indices

5.7 Implement assessment and monitoring program

5.8 The contractor shall prepare a Quality Assurance Program Plan in conjunction with DNR staff.